

REMARKS

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1-21 are now present in the application. The drawings and claims have been amended. Claims 16-21 have been added. Claims 1 and 19 are independent. Reconsideration of this application, as amended, is respectfully requested.

Allowable Subject Matter

The Examiner has indicated that dependent claims 5-15 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. Applicant appreciates the indication of allowable subject matter by the Examiner.

Priority Under 35 U.S.C. §119

Applicant thanks the Examiner for acknowledging Applicant's claim for foreign priority under 35 U.S.C. §119, and receipt of the certified priority document.

Drawings

The Drawings have been amended to remove the presence of minor informalities. In particular, the legend "RELATED ART" in FIGs. 3 and 4 have been removed. Support for the above amendments to the drawings can be found on paragraphs 0033, 0034 and 0039-0055 of the specification. Applicant respectfully submits that no new matter is entered. Entry of the above amendments to the drawings is earnestly solicited.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Koyama, U.S. Patent Application Publication No. US 2001/0048408. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

In light of the foregoing amendments to the claims, Applicant respectfully submits that this rejection has been obviated and/or rendered moot. Without conceding to the propriety of the Examiner's rejection, but merely to clarify the application, as the Examiner will note, independent claim 1 has been amended to recite a combination of elements including "a voltage to current converting unit supplying current of a plurality of levels to a data line of the display panel according to logical combinations of the sampled picture signal from the latch unit, using a current mirror method". Support for the above combination of elements can be found in FIGs. 5 and 6. Applicant respectfully submits that the combination of elements set forth in claim 1 is not disclosed or suggested by the reference relied on by the Examiner.

Koyama discloses a driving circuit for an image display device, including a plurality of shift registers, a latch portion, and a plurality of digital-analog converters DAC (see FIG. 1). Koyama also discloses that the digital-analog converter DAC includes a bit comparison pulse width converter BPC and an analog switch 20 (see FIGs. 6 and 8). The BPC's output PW-i depends on the logical operations of the count signals C0-2, the set signal ST, and the signals L-i(0)-(2) from the latch portion. As shown in FIGs. 8 and 9, when the BPC's output PW-i is high, the output DA-i of the digital-analog converter DAC would be the graduation power supply VR, which has a step-like voltage level (see paragraph 0096).

Therefore, the output DA-i of the digital-analog converter DAC in Koyama is a *voltage* signal and depends on the graduation power supply VR and the logical operations of the count signals C0-2, the set signal ST, and the signals L-i(0)-(2). Koyama nowhere teaches using a *current mirror method* to supply *current of a plurality of levels* to a data line of the display panel according to logical combinations of the sampled picture signal from the latch unit as recited in claim 1.

Although the Examiner on page 2 of the instant Office Action alleged that Koyama in FIGs. 1, 3, 9 and 10 and paragraphs 0095-0107, 0182-0189, 0208 and 0222-0225 discloses a voltage to current converting unit supplying current of a plurality of levels to a data line of the display panel according to logical combinations of the sampled picture signal from the latch unit, using a current mirror method as recited in claim 1, Applicant found no disclosure regarding any *current mirror method* in the above paragraphs or figures of Koyama.

Since Koyama fails to teach at least the above-noted features of amended independent claim 1, Applicant respectfully submits that amended independent claim 1 and its dependent claims (due to their dependency) are patentable over Koyama. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 102 are respectfully requested.

Additional Claims

Additional claims 16-21 have been added for the Examiner's consideration.

Applicant respectfully submits that the combination of elements as set forth in new independent claim 19 is not disclosed or suggested by the reference relied on by the Examiner.

In addition, claims 16-18, 20 and 21 depend, either directly or indirectly, from independent claims 1 and 19, respectively, and are therefore allowable based on their respective dependence from independent claims 1 and 19.

Favorable consideration and allowance of claims 16-21 are respectfully requested.

Additional Cited References

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but rather to merely show the state of the art, no further comments are necessary with respect thereto.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

Application No.: 10/606,364
Art Unit: 2673

Attorney Docket No. 0630-1717P
Amendment due November 10, 2005
Page 13 of 13

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Page 2 of 13

AMENDMENTS TO THE DRAWINGS

Attached hereto is one (1) sheet of corrected formal drawings that complies with the provisions of 37 C.F.R. § 1.84. The corrected formal drawings incorporate the following drawing changes:

In Figs. 3 and 4, the legend "RELATED ART" has been removed.

It is respectfully requested that the corrected formal drawings be approved and made a part of the record of the above-identified application.